TAGHeuer
PROFESSIONAL TIMING

PROCKET PRO
HL400-J
JUMPING

User Manual

Version 09/2014

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1. Concept

The Pocket Pro Jumping App. aptly named Pocket Pro - J - give Pocket Pro users access to Timekeeping functions dedicated to the timing of Show Jumping events. Three exclusive modes ensure time keepers; judges and officials can manage with simplicity and reliability every Jumping event.

The dedicated jumping modes offer countdown, single and two phase or round competition, competitor elimination and a full visual recall and memory of each and every riders countdown allowance used and all phase times.

The Pocket Pro electronic stopwatch is the latest of TAG Heuer's Professional Timing development regime. Additional to the three exclusive timing modes dedicated to Jumping, this 1/100th second handheld timepiece also encompasses standard stopwatch modes, including Split / Lap time measurement, countdown, and memorizing of the time of the day.

Together with its integrated USB connector and free application POCKET MANAGER and supported by the Pocket-Pro 800 measurements internal memory , downloading, analysis, printing and archiving of results are extremely simple and results can be viewed or printed from your laptop or pc instantly.

The USB connector (HL400-4) enables connection to a photocell, a manual switch or a wireless radio input (HL615, HL675).
Pocket Pro Manager adjusts a Lock Time for the USB Input.

> Note:
> Pressing the hard reset (to the right of the USB connector) resets the Lock Time value to 0.01 sec (minium)

2. Standard Timing Mode

Several timing modes are available with Pocket Pro including
Date / **Time** / **Count Down** / **Stopwatch**.

Three specific timing modes are also available on the Pocket Pro: A, B, and C.

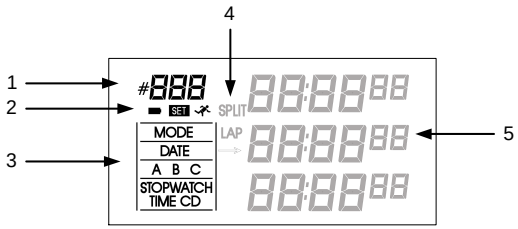
Mode **A**: Jumping - Table A (Speed):
With Count-Down and Phase 1

Mode **B**: Jumping - 2 Phase:
With Count-Down, Phase 1 and Phase 2.

Mode **C**: Jumping - 2 Rounds:
With Count-Down, Round 1 and Round 2

The Pocket Manager application allows downloading, analysis, printing and archiving results
To your laptop or PC

2.1. LCD description



1. Number of competitor / Memory status
2. Battery / Mode Setting / Running status
3. Timing Mode
4. Information Split / Lap
5. Chronometers

2.2. General

2.2.1. How to navigate the different modes

To navigate into a different mode :
- The Pocket Pro has to be stopped (**STOP**)
- Reset memory (**START/STOP** + **MEMORY**)
- Pressing the **MODE** button now allows you to change the Timing Mode

Sequence :
DATE → **STOPWATCH** → **TIME** → **CD** → **A** → **B** → **C**

2.2.2. Power

The Pocket Pro functions with an internal battery. It can be recharged when it is connected to a PC (USB cable) or by a (USB – 5VDC) power supply

When not used for 36hours, the Pocket Pro will switch OFF automatically (LCD OFF)
To wake up the Pocket Pro, just press any button.

It is also possible to switch OFF manually the Pocket Pro by pressing simultaneously the **MODE** and **MEMORY** buttons for 5 seconds.

When the Pocket Pro is OFF, all the times are stored in memory.
The icon ▬ will indicate the level of the battery

During charge:	75% ON / 25% OFF blinking
Fully charged:	with USB Cable: icon ON
	Without USB cable: icon OFF
Low level	(<10% charge): blinking 50% ON & 50% OFF
	(you still have 2-3 days autonomy)

2.2.3. Time Memory

The Pocket Pro has a memory of 800 times.
The number of memorized times is shown on the 3 digits (Memory status)

When the memory reaches 90% capacity (720 times), the 3 digits will flash.

Warning

Once the memory is full (800 times), the next time recorded will be stored as 001
The previous time will be automatically deleted
The LCD will continue to flash

The memorized time can be recalled and displayed on the LCD at any time (even during a timing session).

By pressing the **MEMORY** button, the memorized time 001 will be displayed as the button is held down. The number of the memory shown is displayed on the top-left of the LCD

Press the **MEMORY** button again and the next stored time will be displayed.

2.2.4. Delete Memory

To delete the memory, press simultaneously **START/STOP** and **MEMORY** buttons.

Warning

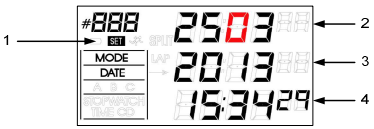
Once the memory is deleted, all stored times are no longer available for recall.

2.3. Date Mode

This mode allows you to update the date of the Pocket Pro.
To set the date:

- Press the **MEMORY** button: the first digit will flash and **SET** icon is ON
- Press the **SPLIT/LAP** button to change the value
- Press the **MEMORY** button to move to the next digit

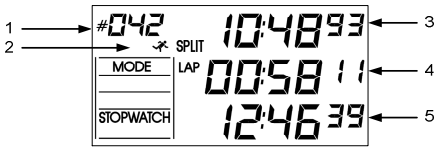
Validate your setting with the **MODE** button (**SET** icon is OFF)



1. Icon Set ON = Setting
2. Date setting (in red, digit blinking) (25.03)
3. Year setting (2013)
4. Time of the Pocket Pro (setting in menu TIME)

2.4. STOPWATCH mode

This timing mode allows the timekeeper to make a Start/Finish, with intermediate time (**SPLIT**) and lap time (**LAP**) with a 1/100th of a second precision



1. Number of split / Memory status
2. Running status
3. Split time
4. Lap Time
5. Running time

The time displayed is up to 59'59.99'' (1 hour)

SPLIT : Intermediate time, or cumulated time taken at each time (**SPLIT/LAP** button)
The SPLIT Time is to the top of the LCD (mm:ss.dc)

LAP : Lap time or time difference between time taken (**SPLIT/LAP** button)
The LAP time display is in the middle of the LCD (mm: ss.dc)

Running Time : Running time between Start and Finish
The running time is on the bottom of the LCD (mm:ss.dc)

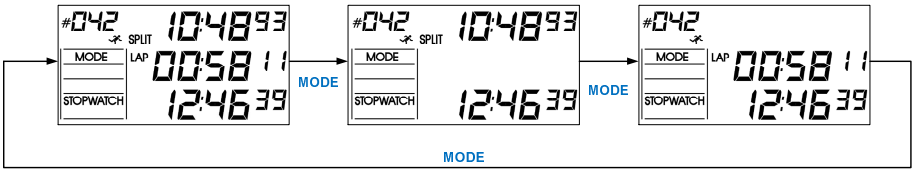
The running time always starts from **00:00:00**.

- To start, press the **START/STOP** button (icon is ON)
- Three times are running and displayed
- At Split / Lap, press **SPLIT/LAP** Button.

The **SPLIT** and **LAP** time is stopped. The running time (bottom) continues to run.

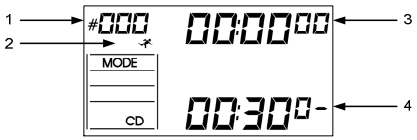
At each press of the **SPLIT/LAP** button, the counter store increments.
It is possible to recall and view the running time (after **SPLIT/LAP**) by pressing **MEMORY** button.

For simple viewing in this mode, it is possible to reduce the information, and display only **SPLIT** or **LAP**. For this, during the race, press the button **MODE**.



2.5. Count Down mode (CD)

This mode allows you to make a unit count down or loop count-down



1. Number of split / Memory status
2. Running status
3. Counter
4. Count Down (max 59:59.9)

2.5.1. Set Count Down

To change the Count-Down value, the memory has to be deleted.
To set the Count-Down value:

- Press the **MEMORY** button: the first digit will flash and **SET** icon is ON
- Press the **SPLIT/LAP** button to change the value
- Press again the **MEMORY** button to change to the next digit
- Validate your setting with the **MODE** button (**SET** icon is OFF)

The maximum count down available is 59:59.9 (mm:ss.d)

2.5.2. Count Down timing .

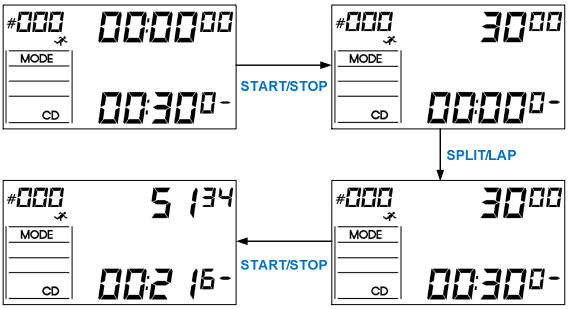
- To start the count down, press **START/STOP** button (icon is OFF)
- The count-down value decrements (on the bottom)
- A timer (on the top) is started (increments)

At any time it is possible to **PAUSE** and **RESTART** the count-down

A long single beep will sound at the end of the Count-Down
The count-down will stop automatically at 00:00.
To restart a new count-down, you have to reset the value by pressing **SPLIT/LAP** button.

During the count-down sequence by pressing the **MODE** button, it is possible to change the Single Count-Down to Auto-Restart Count-down (loop mode).
The **CD** icon on the LCD will switch.
In this Auto-Restart Count-Down, during the last 5 seconds, the Pocket Pro will sound a single short beep and a long beep at 00:00
The Pocket Pro will restart automatically from the pre-defined time of the count-down.
The timer will run and show the full time since the first Start.

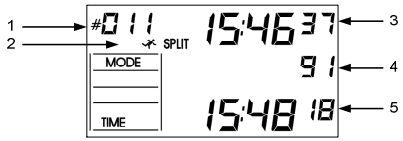
To stop the sequence, you have to RESET the Pocket Pro.



2.6. TIME Mode

This timing mode allows you to memorize the time of day at each split.
This is very useful as a back-up system during a timing session and relates to other timing systems such as Chrono Printer, Mini Timer or Start Clock).

In Time mode, you have on the top of the LCD the value 00:00.00 and on the bottom the time of the day of the Pocket Pro.



1. Number of split / Memory status
2. Running status
3. Chrono Time (hh:mm:ss)
4. Chrono Time (1/100)
5. Pocket Pro time

2.6.1. Internal Time of Day setting

To set the Internal Time of Day on Pocket Pro:
- The Pocket Pro memory has to be reset (**START/STOP** + **MEMORY**)
- Press and hold the **MEMORY** button for 5 sec: the first digit will flash and **SET** icon is ON
- Press the **SPLIT/LAP** button to change the value
- Press the **MEMORY** button to move to the next digit

2.6.2. Time of day synchronisation

- Press **SPLIT/LAP** and **START/STOP** buttons simultaneously.
- The time of day of the Pocket Pro will be displayed on the top of the LCD with 1 minute in advance.
- The synchro will be automatic at the end of the full minute

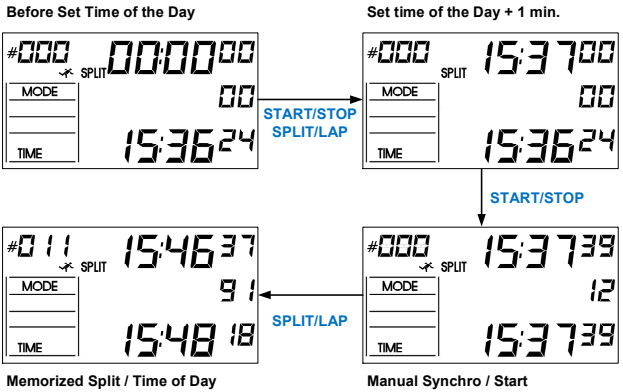
2.6.3. To Synchronise at Zero

- Press **START/STOP** button

The Chrono automatically starts from zero.

2.6.4. Timing

Once the Synchronisation is made, the icon appear.
To memorize the time of day, press **SPLIT/LAP** button
The time on the LCD will stay and the passing counter (top-left) is incremented.
To see the time of the day running, press **MEMORY** button.


Before Set Time of the Day
Set time of the Day + 1 min.
#000
SPLIT
00:00 00
00
MODE
TIME
15:36 24
START/STOP
SPLIT/LAP
#000
SPLIT
15:37 00
00
MODE
TIME
15:36 24
START/STOP
#011
SPLIT
15:46 37
91
MODE
TIME
15:48 18
SPLIT/LAP
#000
SPLIT
15:37 39
12
MODE
TIME
15:37 39
Memorized Split / Time of Day
Manual Synchro / Start

3. Specific Timing Modes

In Pocket Pro Jumping, 3 timing modes are available on the Pocket Pro.

A: Jumping - Table A (Speed):
With Count-Down and Phase 1

B: Jumping - 2 Phase:
With Count-Down, Phase 1 and Phase 2.

C: Jumping - 2 Rounds:
With Count-Down, Round 1 and Round 2

1. Number of split / Memory status
2. Running status
3. Chrono Phase 1 (in A) / Phase 2 (in B/C)
4. Chrono Phase 1 (in B/C)
5. Count Down

3.1. Jumping A (mode A) / Jumping B (mode B) / Jumping C (mode C)

Each competitor is identified by its passing number (sequential) and not by its bib number.

The Count-Down value has to be set previously into the CD mode
(in Minutes/Seconds).
In Jumping mode, it is automatically corrected in seconds (example : 1'15'' = 75 sec)

Once the first competitor is started, it is possible to change the count-down beep signal by pressing the **MODE** button. The A, B or C icon will be flashing.
When it is flashing, as with the Count-Down mode, the last 5 beeps will sound.

3.1.1. Start Race :

For each of the following steps (Count Down, Start / Jump-off / Finish) of Phase or Round, press **START/STOP** button (icon displays)

3.1.2. Pause / Restart :

At any time it is possible to Pause the Count-Down or Time by pressing **SPLIT/LAP** button.
The icon is flashing.
To restart, press **START/STOP** button

3.1.3. New competitor :

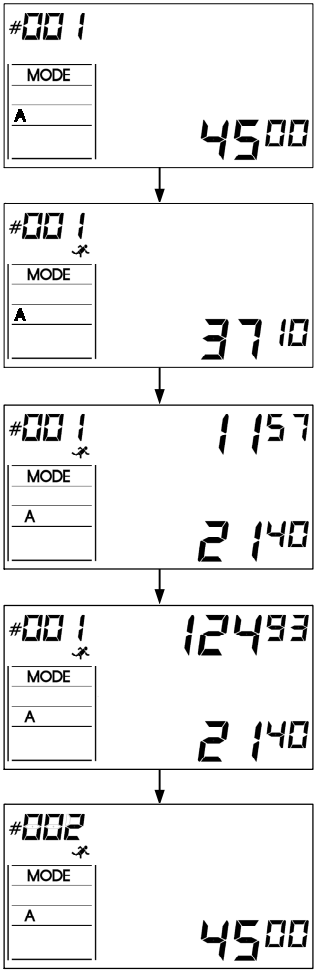
After a finish you can prepare for the next competitor, press **SPLIT/LAP** button.
The competitor counter is incremented.

3.1.4. Disqualify competitor :

During the session, it is possible to disqualify a competitor.
For this, press and hold the **SPLIT/LAP** button for 5 seconds
The time of a disqualified competitor is displayed as **0** during recall

Warning:
It is important that the time is running to disqualify a competitor
A short press on the button will only pause the time.

3.1. Example : Jumping A (1 phase)



1
1. Competitor n° 1 : ready to Start
   Count Down

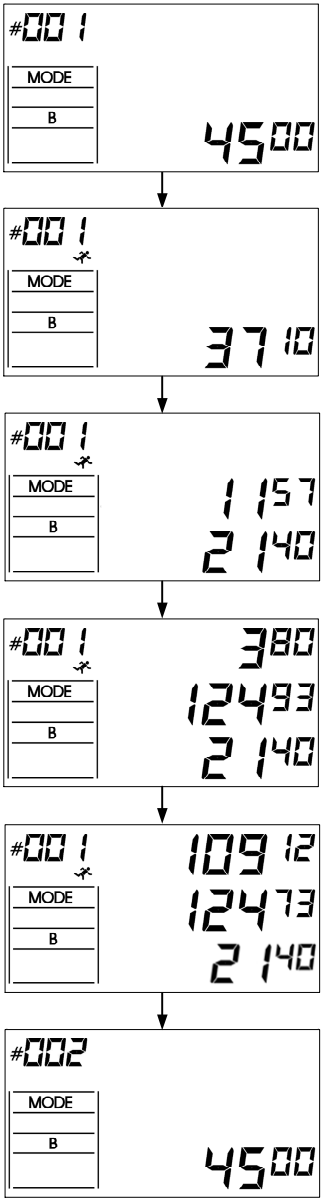
2
2. Competitor n° 1:
   Count Down running

3
3. Competitor n° 1:
   Count Down Stopped (21.4 sec)
   Phase 1 run

4
4. Competitor n° 1
   Phase 1 stopped (124.93 sec)
   Result
   Count Down: 21.40
   Phase 1: 124.73 sec

5
5. Next competitor
   Competitor n° 2

3.2. Example : Jumping B (2 phase)



1
1. Competitor n° 1: Ready to Start
Count Down

2
2. Competitor n° 1:
Count Down running

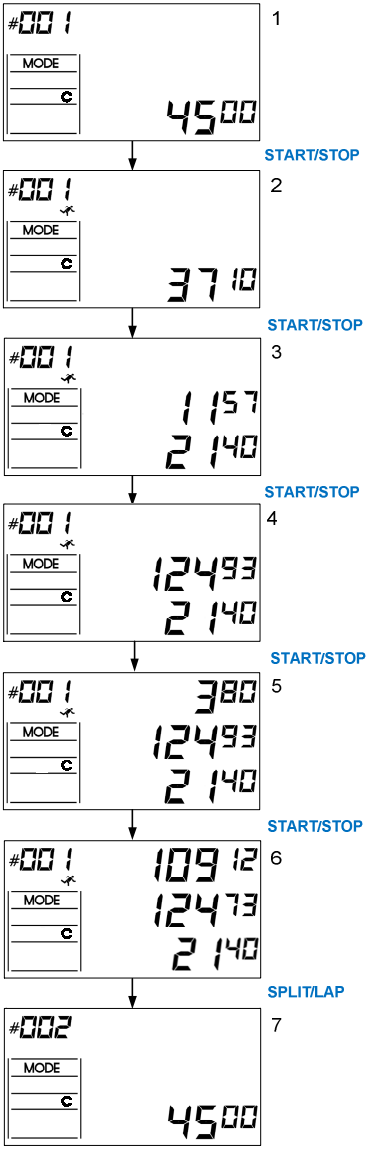
3
3. Competitor n° 1:
Count Down stopped (21.4 sec)
Phase 1 running

4
4. Competitor n° 1:
Phase 1 stopped (124.93 sec)
Phase 2 running

5
5. Competitor n°1:
Phase 2 stopped
Result
Count Down: 21.40
Phase 1: 124.73 sec
Phase 2: 109.12 sec

6
6. Next Competitor
Competitor n° 2

3.3. Example Mode C (2 Round)



1. Competitor n° 1 : Ready to Start
   Count Down
2. Competitor n° 1:
   Count Down running
3. Competitor n° 1:
   Count Down Stopped (21.4 sec)
   Round 1 running
4. Competitor n° 1:
   Round 1 stopped (124.93 sec)
5. Competitor n°1:
   Round 2 : running
   Display results Round 2
6. Competitor n° 1
   Round 2 stopped
   Result
   Count Down: 21.40
   Round 1: 124.73 sec
   Round 2: 109.12 sec
7. Next Competitor
   Competitor n° 2

4. Recommendations

Although the Pocket Pro can be used indoors and outdoors, optimal viewing and protection is best when the display is in the shade or covered from direct sunlight and rain.

Never immerse the Pocket Pro in water.

The Pocket Pro is developed to endure light rain.
The USB socket is protected by the black rubber, and prevents any water ingress.

It is very important and recommended to keep the rubber in place at all times when not using the USB connection.

The optimal visibility of LCD is when the Pocket Pro is protected from direct sunlight

The Pocket Pro can overheat in excessive direct sunlight.

The LCD Plexiglas is fragile. It is not recommended to clean it with a solvent or alcohol

IMPORTANT
A slightly damp cloth is recommended for cleaning the Pocket Pro

5. Download a new version of Firmware

Program downloads and new releases of the TAG Heuer firmware “up loader” are available free of charge on our website www.tagheuer-timing.com.

For this operation, you need to have:
- Mini-USB cable HL545-3
- The software «TAGHeuerFirmmanager.exe » version minimum V10.0

Procedure
- Copy the software «TAGHeuerFirmManager.exe » onto your hard disk drive
- Connect the Mini-USB cable (HL545-3) to the PC and to the Pocket Pro
- Run the software « TAGHeuerFirmManager.exe »
- Select the COM Port
- Select the file: Update (HL400_xxx.dat)
- Press START on the software.
- Press reset on Pocket Pro
- As soon as the upgrade is downloaded into the HL400, validate the software with OK.
- The HL400 is ready to use.

6. Technical specification

6.1. Pocket Pro characteristics

-	Power	5 Vdc
-	Internal battery	600mAh / 3.7V
-	Autonomy	35 days (in use) after full charge
-	Shell	Aluminium – PVD surface treatment
-	Weight	160 g
-	Precision	+/- 2 sec / month Calibration available
-	Display	LCD 3 lines of 6 characters Battery level / Timing Mode
-	Size of characters	7mm height
-	Accuracy	1/100th second
-	Memory	800 stored times
-	Temperature range	–20°C to +60°C

6.2. USB Connector

Pin	Description
1	5V
2	D-
3	D+
4	TAG Heuer Photocell
5	GND

7. Quick Guide

Reset memory

Buttons: Start/Stop + Memory

Change mode:

Clear Memory (Start/Stop + Memory)
Button: Mode

Power off

Buttons: Memory + Mode (hold down together for 5 seconds)

Recall recorded times

Button: Memory

Setting (Date / Time / CD)

Button: Memory to select the digit
Button: Split/Lap to change value
Button: Mode to validate the selection

Stopwatch

Button: Start/Stop: start or stop counter
Button: Split/Lap: memorize Split/Lap
Button: Mode: select display Split or LAP or both
Button: Memory: recall split/lap memorized

Count Down

Button: Start/Stop: Start or Stop counter
Button: Split/Lap: reset the preselected Count Down
Button: Memory: countdown setting
Button: Mode: Select single Count Down or Multi Count Down (CD blinking)

Time

Button: Start/Stop + Split/Lap: Set Time-of-Day (+ 1 minutes)
Button: Start/Stop: Synchro + Start
Button: Split/Lap: Memorize Time-of-Day
Button: Memory: recall/view memorized time

Jumping A / B / C

Button: Start/Stop: Start, Next Phase, Stop, Restart after Pause
Button: Split/Lap (during run): Pause
Button: Split/Lap (after stop): Next competitor
Button: Split/Lap (5 sec): Disqualify
Button: Mode: change beep signal on the Count Down
Button: Memory: recall / view memorized time

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